Environmental Management Consolidated Business Center (EMCBC)

Subject: EMCBC - Integrated Safety Management System (ISMS)

PROGRAM DESCRIPTION APPROVED: ***(Signature on File)***
EMCBC Director
ISSUED BY: OFFICE OF LOGISTICS MANAGEMENT

1.0 PURPOSE

This Integrated Safety Management System (ISMS) Program Description describes how the U.S Department of Energy, Environmental Management Consolidated Business Center (EMCBC) conducts work following the seven ISM Guiding Principles, the five ISM Core Functions, and also incorporates the four Supplemental Safety Culture Principles (adopted from the EM ISMSD). The EMCBC ISMS also integrates important aspects of the EMCBC Quality Assurance Program and Environmental Management System into the ISMS process and describes how this process is used to identify aspects critical not only to safety but also to the environment and to the operational quality of the EMCBC services.

2.0 SCOPE

The EMCBC ISMS is applicable to all processes identified in the EMCBC Implementation Matrix (Attachment B). This matrix is organized utilizing the seven (7) Guiding Principles (and the four (4) Supplemental Safety Culture Principles) and five (5) Core Functions of the ISMS process and identifies the implementing procedures.

The goal is to plan, design, develop, construct, operate, and maintain all aspects of the EMCBC ISMS, and provide our services in a manner that, above all, considers the safety of the workers and environment consistent with our safety policy.

3.0 APPLICABILITY

These processes are applicable to all EMCBC employees and support contractors where required by contract. Each individual and each level of line management has the responsibility to consider the impact of their activities on the safety of individuals, the environment, and the quality of EMCBC operational services. Line management also supports the performance of safety continuous improvement through self assessment, reporting and lessons learned.

DOE EMCBC Service Level Agreement (SLA) Sites adopting this Policy and other EMCBC direct support contractors also share the responsibility for safety. The EMCBC requires its direct support contractors and participating SLA sites to conduct facility operations with the same commitment to “doing work safely”.

4.0 REQUIREMENTS and REFERENCES

4.1 Requirements:

4.1.1 DOE P 450.4, Safety Management System Policy
4.1.2 DOE P 450.7, DOE Environment, Safety and Health Goals
4.1.3 DOE P 226.1A,Department of Energy Oversight Policy
4.1.4 DOE O 226.1A, Implementation of Department of Energy Oversight Policy
4.1.5 DOE O 450.1A Environmental Protection Program
4.1.6 Executive Order 13423, Strengthening Federal Environmental, Energy and Transportation Management
4.1.7 DOE O 414.1C**,** Quality Assurance

4.2 References:

4.2.1 U.S. Department of Energy Office of Environmental Management Integrated Safety Management System Description (EM ISMSD) dated May 2008
4.2.2 ISO 14001-2004, Environmental Management Systems: Requirements with Guidance for Use
4.2.3 DOE Guide 450.1-1, Attachment 2, Self Declaration Procedure
4.2.4 EMCBC Implementing Procedures and Documents
4.2.5 DOE G 450.1-2, Implementation Guide for Integrating Environmental Management Systems into Integrated Safety Management Systems
4.2.6 EMCBC Strategic Plan
4.2.7 PL-442-01, EMCBC Federal Occupational Safety and Health Plan
4.2.8 IP-430-01, Real Property Implementing Procedure
4.2.9 PD-411-01, EMCBC Functions, Responsibilities, and Authorities (FRA)
4.2.10 IP-414-02, Oversight and Assessment Program Procedure
4.2.11 48 CFR 970.5223-1, Integration of Environmental, Safety and Health into the Work Planning and Execution

5.0 DEFINITIONS

See the EM ISMSD and DOE G 450.1-1A, *Implementation Guide for Use with DOE O 450.1, Environmental Protection Program*, Attachment 5, Glossary, for a list of definitions and acronyms.

6.0 RESPONSIBILITIES

The EMCBC has published the EMCBC Functions, Responsibilities and Authorities Program Description to outline the Safety Responsibilities associated with EMCBC work activities. Additional procedures have been developed which define more specific Safety responsibilities and include the FEOSH Program, NEPA Procedures, QA Plans and Procedures, Occupant Emergency Plans, etc. Specific Responsibilities include:

6.1 Director, Headquarters, Office of Small Sites and Projects (or Federal Project Director)

6.1.1 Ensure the appropriate processes are in place to oversee effective execution of mission activities and implementation of the EM ISMS, EMS and QA Programs.

6.1.2 Ensure that line management develops and utilizes effective, documented programs for conducting oversight assessments of their contractor programs.

6.1.3 Approve, or obtain approval as appropriate of Site Contractors' Integrated Safety Management System Descriptions (ISMSDs) where required by contract.

6.1.4 Conduct Contractor Assurance System assessments of the Contractor's Site ISMS, EMS, and QA systems to ensure compliance with DOE requirements and goals where required by contract.

6.2 EMCBC Director

6.2.1 Establish ISMS, EMS and QA goals as appropriate for the EMCBC to include those established by Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, related to recycled materials, green purchasing, and applicable transportation related Federal operations and activities and DOE O 450.1A, Attachment 2. The goals should be captured and updated in the EMCBC Strategic Plan.

6.3 EMCBC Assistant Director, Office of Contracting

6.3.1 Ensure applicable contractor requirements document (CRD) (DOE O 450.1A, Attachment 1) is incorporated into all DOE contracts pursuant to 48 CFR 970.5204-2, *Laws, Regulations, and DOE Directives*, by notifying contracting officers of affected contracts.

6.3.2 Ensure 48 CFR 970.5223-1, Integration of Environmental, Safety and Health into the Work Planning and Execution,) is incorporated into DOE contracts by notifying contracting officers of affected contracts.

6.4 EMCBC Assistant Director, Office of Logistics Management

6.4.1 Support the assessment of ISMS, EMS, and QA programs in accordance with DOE O 450.1A, DOE O 226.1A, DOE O 414.1C, and associated EMCBC Procedures.

6.4.2 Ensure that this procedure is reviewed on an annual basis.

6.5 EMCBC Assistant Director, Office of Technical Services

6.5.1 Provide technical assistance to the Federal Project Directors, as requested.

6.6 EMCBC Employees

6.6.1 Obtain EMCBC General Employee Awareness Training (GEAT) in order to understand the individual employee rights and requirements for worker safety, health and protection of the environment. GEAT is a required annual training.

7.0 GENERAL INFORMATION

7.1 EMCBC Management Commitments and Expectations

The DOE-EM ISMSD provides the overarching DOE-EM commitment and expectations for safety. This commitment is expressed in the EMCBC Strategic Plan and the responsibilities and management expectations of each EMCBC Employee are described in the EMCBC Federal Employees Occupational Safety and Health Plan (FEOSH). In addition, PS-450-02, *EMCBC Environmental Management System Policy*, has been published to demonstrate and document the commitment to environmental management. The EMCBC fully supports the development of worker and organizational safety culture and continues to develop and implement systems and processes to further develop, provide assessment tools and improve the culture.

7.2 Integration of ISMS, EMS, and QAP

The EMCBC Strategic Plan defines the primary strategic themes (work scope) of the EMCBC and establishes goals for achieving the EMCBC mission. The ISMS management process defines how significant safety, environmental, and quality aspects are identified, controlled, work is performed and feedback is obtained. Significant quality and environmental management aspects are integrated into the ISMS process using the five (5) Core Functions.

The EMCBC EMS requires work to be done in a four step process consistent with the five (5) Core Functions (Figure 7.1). This is commonly referred to as the "Plan-Do-Check-Act Cycle". Significant environmental aspects are identified, managed, assessed, and reviewed using the same management process as significant safety aspects.

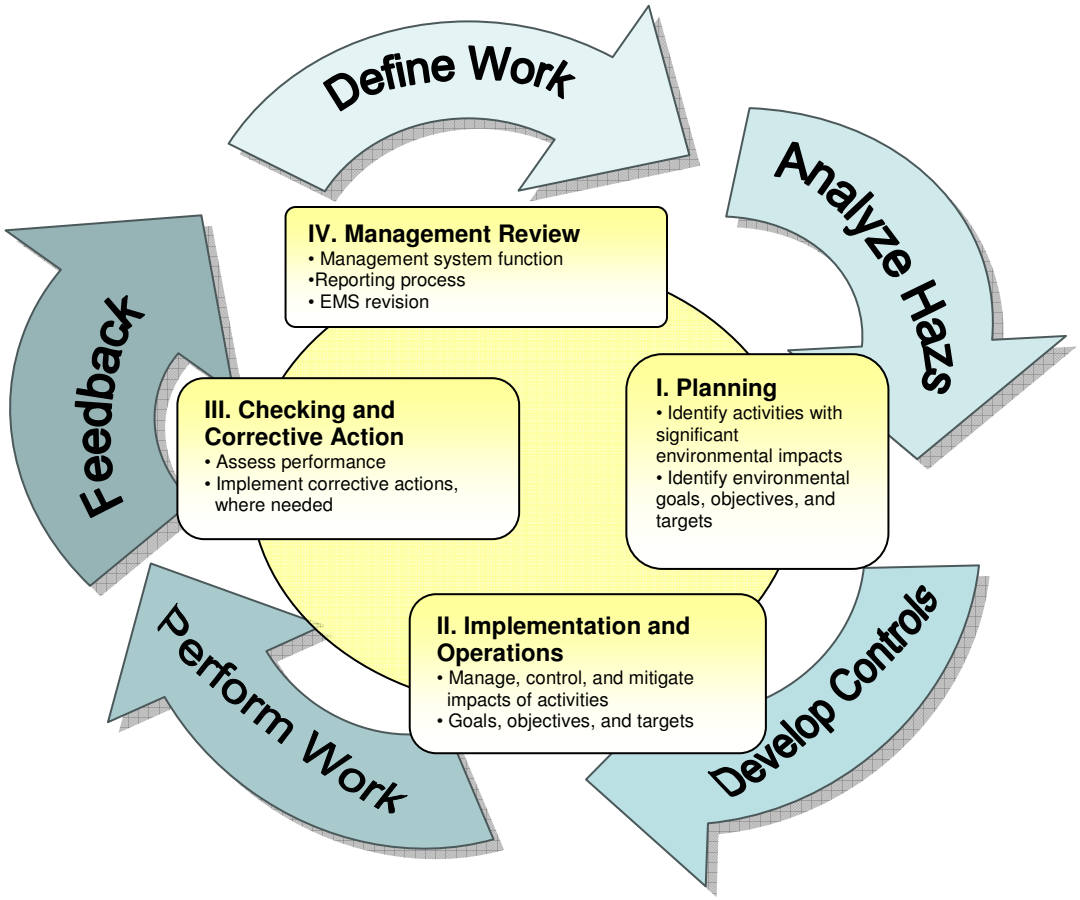

Figure 7.1 How EMS Steps Overlay the ISMS Core Functions

The DOE fundamental quality expectation is that all work meets established requirements. In this regard, the quality management system ensures compliance with the approved safety standards of safe work wherein controls are established and met. This also ensures that workers, the environment, and the public are protected from harm. At the organizational level, the EMCBC quality and safety requirements share the same management systems approach (Figure 7.2) to achieving their objectives.

ISMS Principles and Functions \ QA Criteria	Program	Training and Qualification	Quality Improvement	Documents and Records	Work Processes	Design	Procurement	Inspection/Acceptance	Management Assessment	Independent Assessment
Line Management Responsibilities	●			●					●	
Clear roles and Responsibilities	●			●					●	●
Competence Commensurate with Responsibilities		●		●					●	●
Balanced Priorities	●			●					●	●
Define the Work				●	●	●	●	●	●	●
Analyze the Hazards				●	●	●	●	●	●	●
Develop and Implement Controls, Safety Standards, and Requirements				●	●	●	●	●	●	●
Perform Work within Controls/Operations Authorization				●	●		●	●	●	●
Feedback and Improvement			●	●	●			●	●	●

Note: Areas marked indicate a) when QA criteria and the principle/function have shared intent or b) when QA criterion is applied to the ISMS principle or function

Figure 7.2 ISMS and QAP Relationship

7.3 The ISMS Core Functions

The EMBC promulgates ISMS using many of the same DOE-EM systems and uses a similar management systems approach. The EMCBC management systems define the practices, techniques, and tools used to implement ISMS at the Federal level.

7.2.1 Defining Scope of Work: Missions are translated into work, expectations are set, tasks are identified and prioritized, quality assurance standards are applied, reporting is formulated and resources are allocated.

The EMCBC Strategic Plan emulates and incorporates the DOE-EM Five Year Plan and the DOE Strategic Plan (Figure 7.3 DOE Strategic Management System). ISMS are promulgated through the Environmental Responsibility and Management Excellence Strategic Themes. Based on the strategic plan, the primary work scope for the EMCBC is:

- Theme 1 - Integrated Acquisition, Financial & Project Management, and
- Theme 2 - High Quality Program and Technical Support.

In addition, the EMCBC has the over riding responsibility to:

- Provide for an environment where worker safety is our first priority,
- Manage the EMCBC offices in an environmentally responsible manner, and
- Continually improve the quality of EMCBC services thru assessment and reporting.

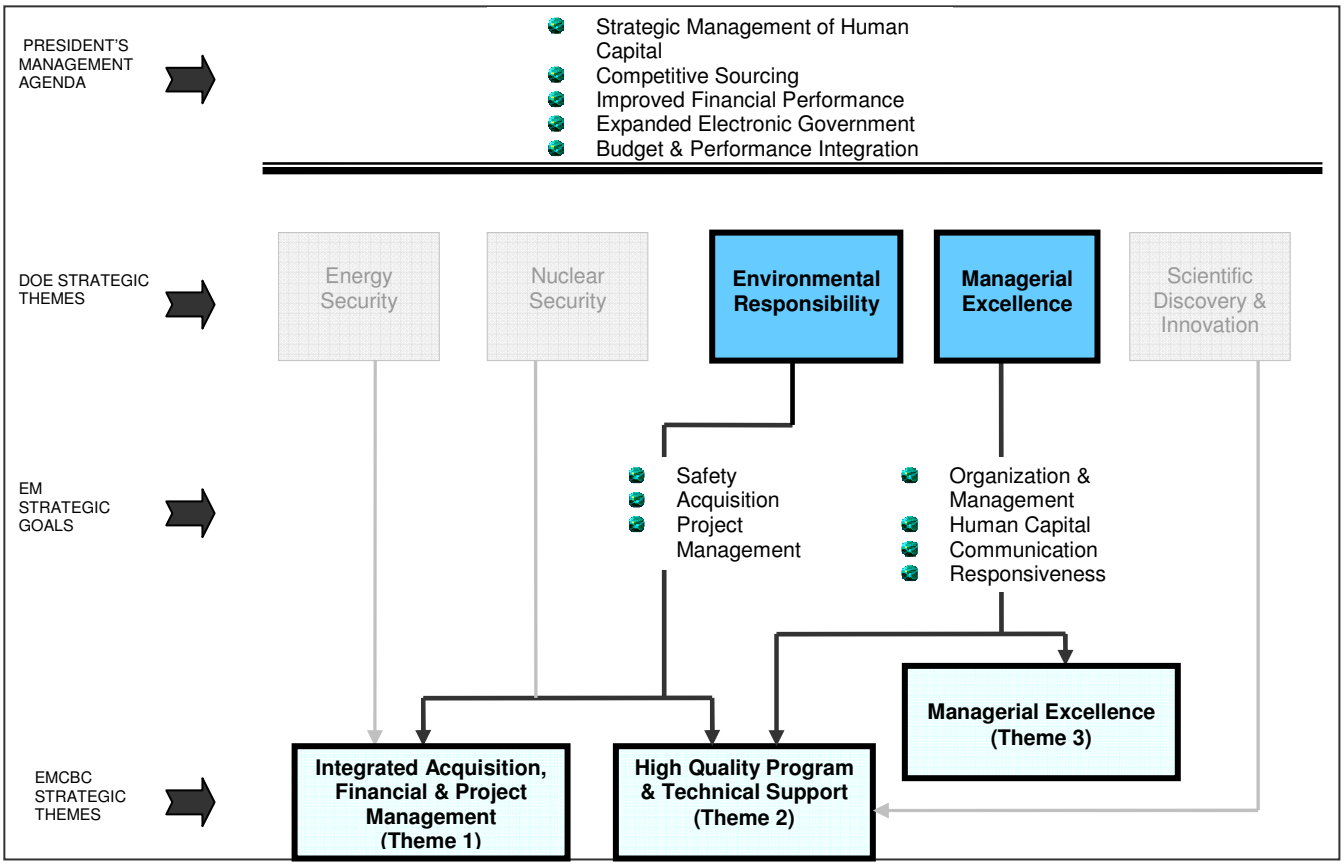

Figure 7.3 DOE Strategic Management System

7.2.2 Identifying the Hazards: *Hazards associated with work are identified, analyzed and categorized.*

The objective of hazards analysis for Federal work activities at the EMCBC is to develop an understanding of the potential for the hazards to affect the health and safety of the Federal worker, the public, and the environment. The EMCBC has used application of regulations, physical walk-through of DOE space and employee input to identify safety hazards in Federal facilities. Brainstorming, as an identification of hazards, allows for additional input and has also been used.

Integrated Acquisition, Financial & Project Management - The EMCBC technical support staff, technical support contractors and other subject matter experts are utilized to identify requirements associated with the work scope (Statement of Work or Performance Work Statement) in each procurement action and resulting contract. Each statement of work is thoroughly analyzed to assure that significant safety, environmental, and quality aspects are identified and communicated to the contractor. Applicable Federal Regulations (List A) and Applicable DOE Directives (List B) are compiled for inclusion in the Request for Proposal. In addition, to List A and List B,

other significant requirements are included such as Project Agreements and Significant Correspondence.

Program and Technical Support - The EMCBC promulgates worker safety Hazard Analysis through PL-442-01, *EMCBC Federal Occupational Safety and Health Plan* (FEOSH). Recurring FEOSH inspections of Federal work space helps to ensure continued due diligence in maintaining a workplace free from safety hazards. In addition, the EMCBC identifies hazards to the public and environment through multiple Federal processes. These include but are not limited to the EMCBC and Project Level National Environmental Policy Act processes, reporting and others when required. The EMCBC uses quality assurance mechanisms such as surveys, assessments and management reviews and tools such as Plans, Procedures, reporting processes such as controlled documents and flowcharting to illustrate its environmental impact assessments or life-cycle assessments to recognize:

- positive as well as negative environmental impacts,
- actual and potential environmental impacts,
- the location and/or part of the environment that may be affected, such as air, water, etc.

7.2.3 Developing/Implementing Hazard Controls: – *Applicable standards and requirements are identified and agreed upon; controls to prevent or mitigate hazards are identified and implemented.*

Integrated Acquisition, Financial & Project Management - The EMCBC flows down requirements to contractors through existing contract mechanisms. The EMCBC considers legal and contractual authorities, its policies, local or regional issues and its obligations and responsibilities to EMCBC/SLA Sites. These requirements are typically documented in the work scope and by listing the Applicable Federal Regulations (List A) and Applicable DOE Directives (List B). In addition, to List A and List B, other significant requirements are included such as Project Agreements and Significant Correspondence.

Program and Technical Support - The EMCBC promulgates worker safety Hazard Analysis through PL-442-01, *EMCBC Federal Occupational Safety and Health Plan (FEOSH)*. Recurring FEOSH inspections of Federal work space helps to ensure continued due diligence in the identification and mitigation of new hazards. For design review and construction activities in EMCBC facilities, the EMCBC utilizes the processes of the General Services Administration to support the design review and construction of new space. Significant environmental aspects are determined based on the relative impact to the environment for the work scope performed by the EMCBC. In addition to those environmental aspects that the EMCBC can control directly such as transportation, recycling and the reuse of materials, it also considers environmental aspects that it can influence such as those related to purchase of electronic products, reduction or elimination of products that may contain hazardous material and services that it provides to EMCBC/SLA Sites.

7.2.4 Performing Work: *Readiness is confirmed and work is performed safely.*

Integrated Acquisition, Financial & Project Management – The EMCBC performs oversight of contractors in accordance with the EMCBC oversight procedure, IP-414-02, *Oversight and Assessment Program Procedure* to ensure that work is being performed within the requirements as defined in the contract. Results of EMCBC assessments are input into formal assessment reports with deficiencies being written to document the non-conformance. The non-conformances require an Issue Statement be written against the deficiency and a formal Corrective Action Plan is prepared against the issue.

Program and Technical Support - The EMCBC performs Self Assessment of its work activities in accordance with established EMCBC Procedures. These include the EMCBC oversight procedure, IP-414-02, *Oversight and Assessment Program Procedure*. The EMCBC conducts surveillances and assessments to ensure the adequacy of plans, procedures and implementation of work practices. Worker Safety is assured by employees who are trained in PL-442-01, *EMCBC Federal Occupational Safety and Health Plan*. Recurring FEOSH inspections of Federal work space helps to ensure continued due diligence in maintaining a workplace free from safety hazards. Environmental performance goals and indicators are an important tool for monitoring implementation of its environmental policy. These are established by management and tracked by the EMCBC Transformational Energy Action Management (TEAM.) team. The TEAM Initiative ensures that DOE meets and exceeds the goals of Executive Order 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*.

7.2.5 Continuous Improvement: Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory and enforcement actions occur.

The EMCBC strives for continuous improvement in all aspects of Federal work activities. This is a cornerstone of the EMCBC Strategic Plan and is promulgated through multiple measures that support all aspects of the EMCBC work scope.

Integrated Acquisition, Financial & Project Management and Program & Technical Support – The EMCBC utilizes two primary quality improvement processes for continuous improvement:

> Self Assessment - The EMCBC implements Customer Satisfaction Surveys and uses the results to improve performance. The EMCBC uses self assessment activities to assess compliance with procedural or regulatory requirements. The results of self assessments are used for continuous improvement opportunities.

Lessons Learned - The EMCBC uses Operating Experience and Lessons Learned in accordance with EMCBC procedures that provide for the ability to flow Lessons Learned down from Headquarters and also provides for the opportunity to incorporate Lessons Learned from other DOE-EM Projects.

7.4 Implementation of Safety Management at SLA Sites

Safety Management flows down to the DOE-EM Small Sites through prime contracts. EMCBC assures the flow down of safety management using DOE-EM Line Management beginning with the Federal Project Directors of each Small Site. DOE Oversight and Contractor Assurance is used to verify and validate implementation of safety. The tools and mechanisms used rely on site specific plans, procedures and resources supplemented where needed by EMCBC plans, procedures and Federal employee resources.

7.5 Measuring Safety Performance

The DOE-EM ISMSD provides the Safety Performance Objectives, Measures and Commitments that the EMCBC strives to meet. The EMCBC Federal Employees Occupational Safety and Health Plan ensure continuous monitoring/inspections to verify a safe working environment is maintained. Regular feedback to management concerning occupational safety and health hazards is provided and work related injuries/illnesses are reported in the Computerized Accident Incident Reporting System (CAIRS). Monitoring of Environmental Management goals and performance measurement is described in the EMCBC Environmental Management System (EMS) Program Description.

8.0 RECORDS MAINTENANCE

8.1 This Program Description is a record of the EMCBC commitment to safety and will be reviewed annually and revised as necessary based on mission changes. The Office of the Director is responsible for the record copy of this document.

8.2 Implementation of the Integrated Safety Management System, Environmental Management System, and Quality Assurance Program, at the EMCBC and EMCBC SLA sites generates records through applicable site and EMCBC procedures.

9.0 FORMS USED

None

10.0 ATTACHMENTS

Attachment A – EMCBC Integrated Safety Management Execution Matrix
Attachment B – EMCBC Implementation Matrix

Attachment A – EMCBC Integrated Safety Management Execution Matrix

The matrix below demonstrates the correlation of EMS and QA to ISM approach to all work activities.

<table>
<tr><th>ISMS GUIDING PRINCIPLES</th><th>SUPPLEMENTAL SAFETY CULTURE PRINCIPLES</th><th>ISMS CORE FUNCTIONS</th><th>QUALITY ASSURANCE CRITERIA</th><th>EMS OBJECTIVES</th></tr>
<tr><td rowspan="2">• Line Management Responsibility
• Clear Roles and Responsibilities
• Competence Commensurate with Responsibilities</td><td rowspan="2">• Individual Attitude and Responsibility for Safety
• Operational Excellence</td><td rowspan="2">All Five Core Functions</td><td>• Quality Assurance Program</td><td rowspan="2">• Policy, Planning, Implementation and Operation</td></tr>
<tr><td>• Personnel Training and Qualification</td></tr>
<tr><td rowspan="2">• Balanced Priorities</td><td rowspan="4">• Oversight for Performance Assurance</td><td>• Define Scope of Work
• Identify and Analyze Hazards</td><td rowspan="3">• Work Processes
• Documents and Records
• Design
• Procurement</td><td>• Permitting</td></tr>
<tr><td>• Public Health and Environmental Protection</td></tr>
<tr><td>• Identification of Safety Standards & Requirements
• Hazard Controls Tailored to Work</td><td>• Develop and Implement Hazard Controls</td><td>• Pollution Prevention
• Compliance</td></tr>
<tr><td rowspan="2">• Operations Authorization</td><td>• Perform Work Within Controls</td><td rowspan="2"></td></tr>
<tr><td>• Organizational Learning for Performance Improvement</td><td>• Feedback and Continuous Improvement</td><td>• Quality Improvement
• Inspection and Acceptance
• Management Assessment
• Independent Assessment</td></tr>
</table>

Appendix B – EMCBC Implementation Matrix

ISMS GUIDING PRINCIPLES	MANAGEMENT PROCESS	IMPLEMENTING PROCEDURE	IMPLEMENTING PROCEDURE DESCRIPTION
Line Management Responsibility	Planning	Strategic Plan	EMCBC Strategic Plan
	Establishing Roles	PS-111-01	Mission and Function Statement for the Office of EMCBC
		PS-540-01	Procurement Authorities, Delegations, and Responsibilities
Clear Roles and Responsibilities	Establishing Roles	PD-411-01	EMCBC Function, Responsibilities and Authorities
Competence Commensurate with Responsibilities	Training	PD-361-03	Technical Qualification Program
Balanced Priorities	Workload Planning	PL-226-01	DOE EMCBC Oversight Plan
		IP-540-21	Office of Contracting Workload Management System
Identification of Safety Standards & Requirements Hazard Controls Tailored to Work	Identification of Requirements	PL-442-01	Federal Employees Occupational Safety and Health Plan
		IP-540-06	Procurement Request Packages, Including Financial Assistance
Operations Authorization	Work Authorization	IP-425-01	DOE-EMCBC Support for Startup and Restart of Nuclear Facilities Procedure
		IP-540-15	Review and Approval of Proposed Sales, Procurement, Financial Assistance and Subcontract Actions
	Work Authorization	IP-450-06	Procurement Request Packages (PR), Including Financial Assistance
Individual Attitude and Responsibility for Safety	Establishing Roles	PL-442-01	Federal Employees Occupational Safety and Health Plan
Operational Excellence	Planning	Strategic Plan	EMCBC Strategic Plan
Oversight for Performance Assurance	Oversight	IP-414-02	Oversight & Assessment Program Procedure
Organizational Learning for Performance Improvement	Training	PD-361-03	Technical Qualification Program

ISMS CORE FUNCTION	MANAGEMENT PROCESS	IMPLEMENTING PROCEDURE	IMPLEMENTING PROCEDURE DESCRIPTION
Defining Scope of Work	Work Planning	Strategic Plan	EMCBC Strategic Plan
		PL-226-01	DOE EMCBC Oversight Plan
		IP-540-21	Office of Contracting Workload Management System
Identifying the Hazards	Work Planning	PL-442-01	Federal Employees Occupational Safety and Health Plan
		IP-540-06	Procurement Request Packages, Including Financial Assistance
	Environmental Management	PD-450-01	EMCBC Environmental Management System (EMS) Program Description
Developing/Implementing Hazard Controls	Work Planning	PL-442-01	Federal Employees Occupational Safety and Health Plan
	Environmental Management	PD-450-01	EMCBC Environmental Management System (EMS) Program Description
	Emergency Preparedness	PL-472-01	EMCBC Occupant Emergency Plan
Performing Work	Work Performance	PL-442-01	Federal Employees Occupational Safety and Health Plan
	Environmental Management	PD-450-01	EMCBC Environmental Management System (EMS) Program Description
	Environmental Management	PD-540-17	Green Purchasing Program Description
Continuous Improvement	Performance Feedback	IP-414-02	Oversight & Assessment Program Procedure
		IP-540-15	Review and Approval of Proposed Sales, Procurement, Financial Assistance and Subcontract Actions
		IP-230-01	Operating Experience/Lessons Learned Past Performance Information

EMCBC RECORD OF REVISION

DOCUMENT

If there are changes to the controlled document, the revision number increases by one. Indicate changes by one of the following:

- Placing a vertical black line in the margin adjacent to sentence or paragraph that was revised.
- Placing the words GENERAL REVISION at the beginning of the text.

Rev. No.	Description of Changes	Revision on Pages	Date
1	Initial Procedure	All	10/26/09